AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A device for multiplexing a first stream of data comprising a set (500) of current data frames (60) coming from a mobile telecommunication network with a second stream of data including IP datagrams coming from the an Ethernet network, said data frames (60) having a structure defined by a plurality of time slots, each time slot of a first group of time slots being subdivided into a plurality of information bits carrying a respective communication channel,

wherein the which multiplexing device is characterized in that it comprises:

--a compressor (301') adapted to provide a compressed data block (ACD, CAC) representative of various the varying channels;.

--the bandwidth assigned for a given transmission link being predetermined, prediction means (110) for predicting the available bandwidth, known as the margin, taking account of the band occupied for the transmission of said compressed data block;. and

--formatting means (106) for subdividing and inserting at least one section of the IP datagrams in instead of the time slots space corresponding to the available bandwidth.

2. (currently amended): The A device according to claim 1, wherein the multiplexing device further characterized in that it comprises memory means (109) for storing at

least one IP datagram to prevent congestion of datagrams caused by short-term variation of the

available bandwidth.

3.   (currently amended): The ~~A~~ multiplexing device according to claim 1, wherein

~~characterized in that~~ the compressor comprises:

—analyzer means ~~(36, 361, 362, 363)~~ for analyzing ~~the active or static state of~~ at least one

channel in an analysis window ~~(70)~~ of current data frames ~~(60)~~ to determine whether the channel

is active or static, an ~~the~~ active state, ~~respectively static state, of said channel~~ being assigned to ~~it~~

the channel if a comparison ~~comparing the content of said channel in the N bits compared~~

between the N frames representing of a reference pattern ~~(71)~~ and ~~comprising the N frames~~

~~preceding the set (500) of current frames with~~ the corresponding ~~N bits of the~~ N frames of the

analysis window shows a variation in frame ~~of the~~ content for at least one of the frames ~~bits,~~ a

static state being assigned to the channel if ~~respectively a stability of the content for~~ all the N ~~bits~~

reference frames are the same as the corresponding current data frames, where N is an integer

greater than or equal to 1~~,~~;

—extraction means ~~(37, CAC)~~ for extracting the content of ~~the~~ active channels of the

analysis window as a function of the ~~active~~ states assigned ~~of the bits supplied~~ by said analyzer

~~analysis~~ means~~,~~;

—location means ~~(41, ACD)~~ adapted to provide indications of the location of data content

~~said active and static bits~~ in the current data frames as a function of the ~~active and static~~ states

assigned ~~of the bits supplied~~ by said analyzer ~~analysis~~ means~~,~~; and

–grouping means ~~(40)~~ for grouping at least one identifier of the current block, of the data

content of ~~the active bits~~ said block, and of their ~~respective~~ location of data content within a data

block ~~(44')~~ to be sent.

4.   (currently amended): A demultiplexing device, ~~characterized in that, being~~

adapted to demultiplex a compressed data block ~~(44'')~~ comprising a compressed block ~~(ACD,~~

~~CAC)~~ and at least one IP datagram section, wherein the demultiplexing device ~~includes~~

comprises:

deformatting means ~~(150)~~ for extracting the IP datagram sections and concatenating ~~them~~

IP datagram sections in order to direct ~~them~~ IP datagram sections to the Ethernet network; and

data decompression means ~~(302')~~ ~~adapted to~~ for reconstitut~~ing~~e ~~the~~ active and static

channels from the compressed data block.

5.   (currently amended): A multiplexing/demultiplexing system ~~characterized in that~~

~~it includes~~ comprising:

the ~~a~~ multiplexing device according to claim 1; and

a demultiplexing device, ~~characterized in that, being~~ adapted to demultiplex a

compressed data block ~~(44'')~~ comprising a compressed block ~~(ACD, CAC)~~ and at least one IP

datagram section, wherein the demultiplexing device ~~includes~~ comprises:

deformatting means ~~(150)~~ for extracting the IP datagram sections and concatenating ~~them~~

IP datagram sections in order to direct them to the Ethernet network; and

data decompression means ~~(302')~~ ~~adapted to~~ for reconstitut~~ing~~e ~~the~~ active and static

channels from the compressed data block.

6.   (new): The device according to claim 1, wherein said formatting means determines transmission size of IP datagram sections based on negative acknowledgement from said prediction means when the section to be sent is too large.

7.   (new): The device according to claim 6, wherein a resizing means resizes IP datagram sections for transmission upon negative acknowledgement and adjusts output bit rate to suit the available bandwidth.

8.   (new): The device according to claim 2, wherein said memory means rejects IP datagram sections that cannot be transmitted because of insufficient capacity on the given transmission link.

9.   (new): The device according to claim 2, wherein the memory means exclusively stores IP datagrams.

10.   (new): The device according to claim 3, wherein the number N of frames in the reference pattern is an integer greater than 1.

11.   (new): The device according to claim 3, wherein the number N of frames in the reference pattern is dynamically determined based on reliability of bandwidth predictions by the prediction means over successive analysis window periods.

12.   (new): The device according to claim 1, wherein the compressed data block comprises voice data from a telecommunications network transmitted in frames and wherein the at least one section of the IP datagrams is provided from a different network and is inserted into a frame carrying the voice data.

13.   (new): The device according to claim 4, wherein the compressed block comprises voice data from a telecommunications network, wherein a frame received by the demultiplexing device comprises the voice data and at least one section of the IP datagrams, and wherein the deformatting means extract the at least one section of the IP datagrams from the frame comprising the voice data.